PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450

88395

7590

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.

Woodcock Washburn LLP

Cira Centre, 12th Floor 2929 Arch Street Philadelphia, PA 19104 02/05/2010

Alexandria, Virginia 22313-1450 or Fax (571)-273-2885

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address and indicated unless corrected below of directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or indicated unless corrected below of directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or indicated unless corrected below of directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or indicated unless corrected below of directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or indicated unless corrected below of directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or indicated unless corrected below of directed otherwise in Block 1, by (a) specifying a new correspondence address; and or indicated unless corrected below of directed otherwise in Block 1, by (a) specifying a new correspondence address; and or indicated unless correspondence address and or indicated unless maintenance fee notifications. Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission. CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

| | | | | | | (Depositor's name) |
|--|--|---|--|---|---|---|
| | | | | | | (Signature) |
| | | | | | | (Date) |
| APPLICATION NO. | FILING DATE | | FIRST NAMED INVENTOR | | FORNEY DOCKET NO. | CONFIRMATION NO. |
| 10/561,324 04/19/2006 | | | Brian A. Kraynack | | CHEM0021USA | 5906 |
| TITLE OF INVENTION MODULATION | ON: DOUBLE STRAN | EDED COMPOSITIONS | S COMPRISING A 3'-E | NDO MODIFIED S | TRAND FOR USE I | N GENE |
| APPLN, TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FE | E TOTAL FEE(S) DUE | DATE DUE |
| nonprovisional | YES | \$755 | \$300 | \$0 | \$1055 | 05/05/2010 |
| EXAMINER | | ART UNIT | CLASS-SUBCLASS | 1 | | |
| VIVLEMORE, TRACY ANN | | 1635 | 514-044000 | • | | |
| Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). | | | 2. For printing on the p | atent front page, list | - TSTS P | atent Department |
| | ondence address (or Cha | inge of Correspondence | (I) the names of up to 3 registered patent attorneys or agents OR, alternatively, | | | |
| ☐ Change of correspondence address (or Change of Correspondence Address form FTO/SB/1/22) attached. ☐ "Fee Address" indication (or "Fee Address" Indication form FTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required. | | | (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. | | | |
| 3. ASSIGNEE NAME A | ND RESIDENCE DATA | A TO BE PRINTED ON | THE PATENT (print or ty | pe) | | |
| PLEASE NOTE: Un recordation as set for | less an assignee is ident th in 37 CFR 3.11. Com | ified below, no assignee oletion of this form is NO | data will appear on the p | atent. If an assignee is assignment. | identified below, the de | ocument has been filed for |
| (A) NAME OF ASSI | | | (B) RESIDENCE: (CITY | | | |
| Isis Pharmaceuticals, Inc. | | | Carlsbad, California | | | |
| Please check the appropr | riate assignee category or | categories (will not be p | rinted on the patent): | Individual Corpo | ation or other private gro | oup entity 🗖 Government |
| ☑ Issue Fee ☑ Publication Fee (No small entity discount permitted) ☐ Advance Order - # of Copies | | | Payment of Fee(s): (Please first reapply any previously paid issue fee shown above) A check is enclosed. Payment by credit card. Form PTO-2038 is attached. With Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number 23-3050 (enclose an extra copy of this form). | | | |
| Change in Entity Sta a. Applicant claim | itus (from status indicate is SMALL ENTITY stati | | D. Applicant is no lon | ger claiming SMALL E | NTITY status. Sec 37 Cl | R 1.27(g)(2). |
| NOTE: The Issue Fee ar | d Publication Fee (if req | | d from anyone other than t | | | e assignee or other party in |
| Authorized Signature | /Jane E. In | glese/ | | DateMay | 3, 2010 | |
| Typed or printed nam | Jane E. I | nglese | | Registration No | 48,444 | |
| This collection of inform an application. Confider submitting the complete this form and/or suggest Box 1450, Alexandria, V Alexandria, Virginia 22: | ions for reducing this bu /irginia 22313-1450. DC | CFR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the ONOT SEND FEES OR | on is required to obtain or a 1.14. This collection is est a depending upon the individual Chief Information Office COMPLETED FORMS To | retain a benefit by the p timated to take 12 minu ridual case. Any comm er, U.S. Patent and Trac D THIS ADDRESS. SE | ablic which is to file (and tes to complete, including ents on the amount of tir lemark Office, U.S. Dep. ND TO: Commissioner | by the USPTO to process) g gathering, preparing, and me you require to complete artment of Commerce, P.O. for Patents, P.O. Box 1450, |

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

OMB 0651-0033